Mining in Australia.

mines are being discovered in different

How the Hindoos Are Hoarding Gold.

An enormous amount of the gold of the

to 1885 at \$650,000,000. This was the accumulation of only fifty years. He estimated that \$800,000,000 worth of silver was

hoarded in this time, and states that nearly all of the gold and silver which came into India in return for its exports was thus kept. The Hindoo buys but little from other countries. He lives on rice or coarse grains.

report from an English officer in the In-

dian post office shows that one native

prince has been storing away gold at the

he was asked if he could pay his loan on demand he replied yes, and that they might call for it at any time.

Another gold hoard was discovered not long ago upon the death of the Maharajah of Burdwan. This was opened up on the death of the maharajah. It consisted of

death of the madarajah. It consisted of seven rooms filled with gold and silver

and precious stones. Three of the rooms were locked and the doors bricked up. One

room, 48 feet long, 14 feet wide and 13 feet high, was filled with gold plates and cups, gold and silver ornaments and precious stones. In nearly all of the rooms vaults were found containing money, and in one

hurs. All of the vaults were so protected that it was not possible for the government to find cut exactly how much they

held, and even the exact number of the yaults is not known. This treasure is now

in the hands of the maharajah's descend-

The Gold of China.

There is undoubtedly a vast amount of

gold in China. There are mines in different

parts of the empire, and a great deal of

gold is brought down every year from Si-

beria. It comes to Peking and is there

melted down into small bars of about the size of the little cakes known as lady fin-

gers. It is almost pure, often running over twenty karats in fineness. It is cast in this small shape in order that it may be hoard-

small shape in order that it may be hoarded and easily passed from hand to hand. The officials, who in many cases make fortunes out of their offices, buy these gold bars and secret them. They do not dare to put their money into the banks for fear that their brother officials may discover their wealth and confiscate it. The result is that such gold bars will bring two per cent more in Peking than they will in Shanghai. There are said to be more than 100 places in China where gold is found. In Mongolia

China where gold is found. In Mongolia there are a number of mines, and in the

southwestern part of the empire there are gold workings which are 100 feet deep. The Chinese cannot understand the fall of silver.

I was often asked as to it during my stay

I was often asked as to it during my stay in the country two years ago—the Chinese many times putting to me this question in their queer pigeon English: "What for makee gold so dear?" They did not speak of the fall of silver, but of the rise of gold. At that time silver was just about as low as it is now. I carried my many in deather the control of the country to the country to

money in drafts on New York, and usually received about \$190 in silver for each \$100

Gold in Old Shoes.

I see from the Japanese newspapers that

there is some possibility of that country

establishing a gold basis. If this scheme is

carried out Japan will have to get its gold

carried out Japan will have to get its gold from other countries, at the own production is less than a million of dollars a year. Its gold mines are worked by Japanese laborers who wear shoes or stadals of straw, the soles of which are about as thick as your little finger. These sandals wear out very quickly, and the laborers then throw them away. During my stay in Japan I heard of

away. During my stay in Japan I heard of

away. During my stay in Japan I heard of a queer gold speculation in connection with these old shoes. A man living near the mines had for years collected all the old shoes he could find and stored them away. After a long time he burned them to ashes and panned the result, getting a large

amount of gold from them. The story was told for truth, but, like many oriental state-ments, it sounds rather fishy.

Coren's Wonderful Gold Fields. A great part of the gold of both Japan and China comes from Corea. The Corean

mines are said to be very rich. Corea is

mountainous, and nearly all of its moun

tains contain minerals. During my vis-

it to the country eight years ago our

American minister told me that he believed

the gold product amounted to \$3,000,000 a year. Gen. Clarence Greathouse, the American foreign adviser to the king, described the mines as very valuable, and foreign merchants showed me quills of gold dust

and little nuggets which had been brought to them by the people. So far nearly all of the gold gotten out of Corea has come from

placer washings. There are a few quartz mines, but these are worked in the crudest of ways. The loose rock is pried out with picks or crowbars. When such means fall a fire is built upon the rock, and when it is

of American money I cashed.

ants.

vault there were ten thousand gold



THE HORSE MARKET

Scenes That Can Be Witnessed at the Local Sales.

SOME FIGURES THAT ARE SURPRISING

Swell Carriage Pairs and Hunters Bring Big Money.

HOW IT IS ACCOMPLISHED

The activity of the fall sales of horses in Washington seems to be no less than in former seasons. Certainly the crowds of people that attend the various auction sales are as large as ever. Hundreds of them gather every sales day, and, whether they buy or not, stand out the long and lively vendue. The scene is one well worth going to see. There is a continually moving mass of horses and men, the former of all sizes, colors and conditions of soundness, the latter from every walk in life, including the rough-clad farmer, whip in hand and trousers in his boots, to the welldressed city man in search of a driver; and there is the endless din of the auctioneer, the seller who is crying up his stock, and the warnings of the colored caretakers who show the horses.

"Now, there's a chunk," the auctioneer will cry, as a big, heavy-boned animal striles up to the front.



Some Bargains.

"Gentlemen, there's a beauty; sound in wind, limb and pelt. Just as good a horse as anybody wants. Able to ride, drive and eat hay. You can hitch him to anything you please, and work him anywhere. No-body wants any better horse than that. Now, what am I offered?" A man steps up, pulls the horse's mouth

open, takes a wise, canary-like look at his teeth, and steps back. Another and another does the same thing. Some one else walks around behind the animal and sizes, him up from the rear. At this point the drover, who has picked

the animal up somewhere out in the country, makes a little speech. He avers he knows the man that bred this horse; that knows the man that bred this horse; that the animal is true and sound, and has the



Looking Him Over.

blood of some famous sire in his veins. He also agrees to hitch him up right then and there and drive him to the satisfaction of any one who wants to buy. Around the Ring.

"Let him go round the ring," shouts the auctioneer. "Show them how he travels." The colored boy on the back of the horse flops his arms like a buzzard, gives a wild whoop, and sings out, "Clear the track there; hold yourselves now, we're coming," digs his heels into the heaving ribs of his mount, and goes about the track at a break-neck pace, in and out among the horses and men and posts, until the callow and tender-footed visitor becomes nervous with the thought that the jockey will surely kill himself and horse before he gets

Reining up with a sharp yank in front of the auctioneer's stand, the jockey waits until half a dozen men have again looked over the horse, and the auctioneer invites the crowd to bid.



"What will you give? Fifty! Forty! hirty! Twenty!" There is a moment's pause, and the auctioneer, with a pained and sor-rowful countenance, looks over the assem-blage, and exclaims: "It's a shame, gentlemen, to sell such a fine horse as that for so little money. Now, what will you give? Start him at some figure. Twenty dollars? Nineteen? Will you make it eighteen? Who will give fifteen? What a shame! Will

ginia, come up and look the animal over but no bid is offered.

The auctioneer then takes a new turn "Will somebody start this florse at a dollar?" An imaginary nod somewhere in the crowd is caught by the crafty auctioneer. Whether there is another or not nobody can tell, but in a moment the old man sings out: "I am bid a dollar and a half. Make it two. Two dollars and going Who'll give the half?"

A New Start.



By this time somebody in the two or three hundred people present is ready to bid, and a genuine offer of two dollars and a half comes from the outskirts of the assemblage. The auctioneer is very careful of this bid, and keeps his eye on that man. He would not lose him or his bid for a good deal. He keeps singing out the two dollars and a half and asking for three, and finally sees in another part of the crowd an imaginary bid of three dollars. With this he turns to the real bidder and tries to excite him to a rise. If he succeeds he may knock down the horse even at that low bid. If not they start over again. This time failure to get a bid sends the animal back to the stall and another is brought out.

An average day's sales number from a hundred to a hundred and fifty horses. No time is lost. It takes but a moment to send an animal around the track. There are always veterinary surgeons present to make an examination of the animal and give an approximate idea of his worth. The own-ers are present to make quick decisions and reject or refuse any offer made.

Some Money in It.

Of course there must be some money in selling horses in this way or it would not continue. The way in which it is done is systematic and reasonably safe to the drovers and the auctioneer. The former are, as a rule, thorough-going horsemen sometimes jockeys or trainers out of a job, or rustling and active farmers who prefer to knock about over the country and buy stock at low figures. Hundreds of horses are bought for one and two dollars apiece. Some of them, of course, are utterly worth-less. A heavy or a balky horse in these of low prices is practically worthless. A farmer who has such an animal can easily afford to give him away rather than feed him. Many a drover has paid no more than half a dollar for such a horse, taking him off the farmer's hands and getting him to market on the chance of mak-ing something for himself for his expense and trouble. The stable expensess and auctioneer's commission are uniform items, and the drover can usually tell precisely where he is coming out in every deal. It is not often that he loses. If he does make a mistake now and then he is pretty sure to make it up in the average of his sales.

A Plug Lottery. Thus it may be seen that in the cheap horse sales, where most of the stock is of the "plug" order, the buyer is simply taking a share in a lottery. Now and then some fine horses are picked up by the drovers and sell at very low prices. Not infrequently it happens that good forses are sent to a quick sale by people who are giving up their establishments in Washington and have no further use for their

At the same time that horses, as a rule, are selling low, it was never harder to make up match teams and find first-class carriage and saddle animals than it is now. Prices for such animals are as high, if not higher, than they have been any time during the past ten years. Trotting stock—that is, the distinctively speedy horse with the ewe neck, undersized, perhaps vicious, and inherently prone to some constitutional weakness—sells low. Animals with the best blood still sell at ridiculously low prices. Nevertheless, the trotting-bred animal which presents a full, handsome conformation, with strong, wellmade legs, intelligent head and fine action brings a good price, and in matched pairs carriage and saddle animals than it is now brings a good price, and in matched pairs

even better money.

Hackneys, which have been so fashionable of late, still bring large figures, but as a rule the long prices so lavishly paid three years ago are now unheard of. The extensive importation of fine sizes the inextensive importation of fine sires, the in-crease of the number of home-bred colts, together with natural competition and sym-pathy with the hard times, have combined to produce very conservative estimates of

Victoria and the Monarchy. Arthur Warren, in the Boston Herald.

Queen Victoria has done much strengthen the monarchical idea in the affections of her people. When you know England you see that this is not an "effete" idea, as our humorists and stump speakers are accustomed to define it. When you ask the Briton if he means ever to dissociate himself from this idea, he points out that he has nothing to gain by doing so. He has everything that we have, and he reminds us, with some humor, that his national affairs are giving him rather less uneasiness than ours are giving us just now. We remind him that we have a huge country to govern, and he retorts, "But Britain has a vaster empire." You say then that royalty is expensive. He says: "Not very. Not more than we can afford." You raise other criticisms, but he replies with a reason for each article of his faith.

When you know England well, you find that even here there is a reason for most things. You also discover that you are as little likely to convert the Englishman to a desire for republican government as he is to convert you to a wish for the monarchical form. He is content, and so are we. He takes his monarchy quite as seriously as we take our republic. If we raise the old fetish about bending the knee, we are reminded that the Englishman is quite as self-respecting a person as any other. Sometimes we find reason to be-lieve that he thinks a little too much of himself. But that is a matter of human

A Startling Truth. From the Boston Courier.

Mr. Shocker-"Do you remember, my dear, our honest old neighbor, Mr. Withers, who met with such heavy business reverses, and became so reduced in circumstances?"

Mrs. Shocker-"Very well, indeed. What of him?" Mr. Shocker-"Poor fellow! He is now fill-

who will give fitteen? What a shame! Will you give fourteen? Well, twelve; make it twelve. Ten dollars; who will give ten dollars?"

Perhaps not a single bid has been made. Colored men, hucksters, expressmen, and how and then a farmer from over in Viriance.

Mr. Shocker—"Poor fellow! He is now filling a drunkard's grave."

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Mr. Shocker—"Poor fellow! He is now filling a drunkard's grave."

Mr. Shocker—"Roor fellow! He is now filling a drunkard's grave."

Mr. Shocker—"Roor fellow! He is now filling a drunkard's grave."

Mr. Shocker—"Impossible!"

Mr

FACTS ABOUT GOLD

How the Precious Metal is Hoarded in India and China.

CURIOUS FORMS IN WHICH IT IS FOUND

About the African Mines and the Australian Gold Fields.

THE CYANIDE PRODUCT

(Copyrigited, 1896, by Frank G. Carpenter.) DENVER, Col., October 13, 1896.

MET HERE THE chief American agent of the cyanide process for reducing gold. The process is patented, and the agents of the Scotch firm who own the patents are now to be found n all the gold regions of the world putting up mills. The American agent told me that he had recently contracted for mills ada, and that a number

in Montana and Nevada, and that a number were going up in Utah. Colorado and Arizona. In Juab county. Utah, the old dumps of gold mines are now being worked over by means of cyanide, and the same is to be done with many of the abandoned gold mines of Mexico. I am surprised at stories I daily hear as to the new developments of our gold territory. The old districts are being reprospected, and from the results it is safe to say that the best of our mining regions have not as yet been touched. The great mountain chain running from Alaska to Nicaragua seems to be an almost unbroken mineral bed. Gold and silver are found in the continuation of the chain in South America, and miners are working today at intervals all along the western part of our hemisphere from the Yukon river even to Patagonia.

Gold in Gas and Water.

The most of the gold which has made the world rich in the past has come from nuggets and from veins so large that you could see them. The flood of the precious metals which is now beginning to deluge the earth comes from infinitesimal particles, so scattered through the rock that not a gleam nor a glint of them can be detected by the naked eye. According to some scientists this gold has been deposited in the rock in he gold has been deposited in the rock in he form of gas, Ages ago, say they, there was an eruption in the bowels of the earth, at which time this gas mixed with gold rushed up through the vertical fissures with great force and soaked its way into the porous rock in which the gold is now being found. It was by this means that the little bits of gold were dropped throughout the rock, the force and soal.

It was by this means that the little back gold were dropped throughout the rock, the precious particles being so small that they could not be detected. Many of the old miners had no idea of their existence, and their extraction now is only possible by neans of the cyanide process. There is plenty of gold in salt water. Scientists say that gold is generally diffused in the waters that gold is generally diffused in the waters and one eminent chemist and one eminent chemist and one eminent chemist water.

The Treasures of the Rajahs. force and soaked its way rock in which the gold is now being found. It was by this means that the little bits of gold were dropped throughout the rock, the precious particles being so small that they precious particles being so small that they ago they tried to get the hoarded gold and silver into circulation by offering high rates of interest for money, but the natives would not respond. There are about 300,who can invent a cheap process of getting out such gold will have a fortune.

Forms in Which Gold is Found. Few people have any idea of the queer forms in which gold is found. Dame Nature is the most wonderful of jewelers, and she has decorated the bosom of old Mother Earth with gold in a thousand different shapes. I saw a box of gold nuggets and crystals taken from the Little Johnnie mine rear Leadville. Many of them would in the control of the contr mine near Leadville. Many of them would have made beautiful brooches without redecoration. Some appeared frosted, and others had been torn from the rock in the form of sheets and plates. A great deal of gold is found in crystals. Not long ago there was brought to the Philadelphia mint four thousand dollars' worth of Austine two native princes'died in India, each leaving, it is supposed, about \$20,000,000 worth of gold. One of these princes, who had his twenty millions stored up in his vaults, borrowed from the government of India something like \$2,000,000 to carry on his establishment. He preferred to pay interest to going back on his pile, and when he was asked it be cault now have a saked it be cault now had. there was brought to the Philadelphia mint four thousand dollars' worth of Australian gold. It was made up of little gold crystals, ranging in size from that of a marrowfat pea to tha! of the head of a pin. Gold is also found in cubes and eightsided crystals are common. Some of the gold nuggets from the California mines are shaped like moss. The Little Johnnie has produced a great deal of wire gold. I have seen bits of rock from Cripple Creek upon which when subjected to an intense heat the geld would bubble out and stand up like little gold pin heads upon the dark stone. Gold in its natural state is usually mixed with silver. The new Utah gold deposits are associated with arsenic. In the Mercur mine you find the yellow ore in connection with quicksilver, and in South America it is sometimes mixed with bis-

Placer Mining and Gold Nuggets.

I have spent some time watching the placer miners in different parts of the west. Placer mining was the chief source of gold production in the days of 1849. It is still carried on, but the output is much less than in the past. The chief placer mines of today are in Siberia, where the earth has sometimes to be dug up in a frozen state and melted before the gold can be extracted. This is the case in some parts of the Yu-kon river mines. The fact that there is a gold placer is an evidence that there is gold-bearing rock near by, and miners pre-tend to tell from the character of the gold of the placer as to the nearness of the goldbearing rock from which it comes. If the gold dust is very fine it is supposed to have been carried a long distance. If coarse it is thought that the lead is not far off. Some of the first mining of California was of gold scales which measured less than 1-16 of an inch in length and one milli-

meter in diameter.
Placer miners usually find their biggest nuggets in streams where the bowlders are large. Where the streams are fine gravel the gold is generally small and scaly. The biggest nugget ever discovered in this country was taken out of a mine at Carson Hill, in Calaveras county, Cal. It weighed 195 pounds and was worth more than \$43,000. A number of other large nuggets were found in this same region, ranging in value from \$1,000 upward. In 1855 a nugget of gold was discovered in Sierra county, Cal., worth \$10,000, and in 1850 a mass of quartz and gold was picked up in Tuolumne county which was worth \$30,000. Outside of California some of the United States have come from the south.
North Carolina has produced three nuggets ranging in size from 13 1-2 pounds to 37 pounds, and in Georgia a number of big nuggets have been discovered, the largest of which weighed 737 pennyweights.

The Wonderful African Mines. Through the mining engineers whom I have met here in the west and information which has recently come to the director of the mint at Washington I am able to give some facts as to the mines of Africa which are making such a change in the gold product of the world. These gold mines are a surprise to geologists. One famous man said that he would have rather expected to find gold in the fens of Scotland than in the Rand district of South Africa. Mr. Wm. Weston, a leading mining ergineer of Cripple Creek, and a graduate of the Royal School of Mines of London, tells me that he believes that the South tells me that he believes that the South African gold deposits originally consisted of the bed of a great lake, which, having been dried up and solidified, was by the action of the elements so heaved up that it stood half on end. The upper part of this great gold deposit is now being mined, but as the region is further developed the miners will have to go deeper and deeper into the earth and the cost will be much greater. As it is, the prospects of an enormous quantity of gold from South Africa are excellent. Hamilton Smith, who is perhaps one of the best mining engineers of the world, and who was here not long ago as the agent for the Rothschilds to look up their American investments, estimates that the Rand gold district of Africa will produce a billion and a quarter dollars' worth of gold. He says that gold has been found there as far down to the says that sold has been found there as far down to the says that gold has been found there as far down to the says that gold has been found there as far down to the says that gold has been found there as far down to the says that gold has been found there as far down to the says that gold has been found there are far agreed to the says that gold has been found there are far agreed to the says that gold has been found there are far agreed to the says that gold has been found there are far agreed to the says that gold has been found there are far agreed to the says that gold has been found there are far agreed to the says that gold has been found there are s will produce a billion and a quarter dollars' worth of gold. He says that gold has been found there as far down in the earth as 2,500 feet, and that it exists in all probability to a depth of 3,000 feet. Much of the mining will have to be done at this depth, and according to his estimate it After the ore is gotten out it is crushed be-

would take about \$3,000,000 to equip a mine working at a depth of 3,000 feet. He expects the product of the African mines to exceed \$60,000,000 a lystar by the close of the century, and he welleves that they will be profitable for years to come. Today all of the African mines must be economically managed in order for them to pay dividends. A great spart of the gold has to go back into the mine in the shape of machinery and labor, and up to the present only about one-fifth die the gold gotten out has been clear profit. I: There are now emtween two stones, the under stone being flat and the upper one somewhat round, so that it can be rolled backward and forward over the ore, crushing it. After it is crushed, the metal is saved by hand panning. No pumps are used, and blasting powder and dynamite are practically unknown. There is no quicksliver to gather. known. There is no quicksilver to gather the gold, and in all probability the most of it goes to waste. The mines are the prop-erty of the king, but those who work them undoubtedly steal a great part of the prod-uct. A number of foreigners are now trying to get possession of the mines, and within a few years they will probably be owned-by English, Americans and Russians. FRANK G. CARPENTER. has been clear profit. the fold gotten out has been clear profit. the There are now employed in this African gold district 5,000 white men and 50,000 blacks. Wages are low and everything is idone on the largest and most economical scale. A number of new granide mills are being put up in Australia. I am told that new

FRESH EGGS ARRIVING FROM CHINA Unique Invoices Now Keeping the

parts of that country, and a recent report Custom House Officials Busy. to our director of the mint states that the From the Chicago Inter-Ocean. Australian gold fields have hardly been scratched. Some of the best mines of to-day are in West Australia, in a district where there is little water. In the Cool-gardie gold region, for instance, water sometimes brings as high as 25 cents a gal-low as there are no great quantities of "Fresh eggs from China," is a conspicu ous sign posted in the windows of Chinese stores and restaurants on Clark street But the announcement is in Chinese charsometimes brings as high as 25 cents a gallon, as there are no great quantities of water within three hundred miles of the gold fields. There is a great gold reef in this district. It was discovered by two young men, who found a forty-five-ounce nugget sticking out of a mountain of quartz. They took a bag of nuggets off of a single claim and came back to their camp loaded with gold. The Mercur mining district, south of Salt Lake, is also affected by the lack of water, but this has been remedied by forcing water over the mountains from a stream on the other side. acters. The eggs are a delicacy that come to Chicago every fall from China. The examiners' room in the custom house has for the past two weeks been strewn with the square paper-covered boxes, wrapped with bamboo splits, which hold the consignments of fruits, vegetables and groceries for the Chinese of Chicago and the central west. Not the least among the things imported are the duck eggs. At least 30,000 of them have passed through the custom house the past two weeks. Each egg is wrapped in a mass of black mud, that retains its putty-like consistency for months, even when exposed to the air. They come in boxes holding twenty-five Chinese dozen—that is, ten. ains from a stream on the other Everything that comes from China is purchased by tens. The eggs thus keep absolutely fresh. Peeling the mud coating

nese fowl, and an unfailing mark that keeps the dealer from practicing a decep-tion, is that the yolk, instead of being yel-lew, has the color of an American beauty world is locked up in India. During a visit to that country a few years ago I found that gold had gone out of circulation. The people seemed miserably poor, Another big importation is rice prepared as a gelatinous thread-like substance, which but they had quantities of jewelry. Girls but they had quantities of jewelry. Girls dressed in cotton often wore gold and silver bracelets and anklets, and many a barefooted girl had gold rings and gold belis on her toes. For ages the East Indians have been oppressed. They have not dared to loan their money for fear they would lose it, and they have preferred to put it into ornaments. This custom prevails today, even though there is now under the English security of property. locks most palatable. The canned goods include vegetables, mainly beans and cab-bage. But the Chinese dote on saited fcods and most of the cabbages come shredded and salted, together with beans and mushrooms, and a sea moss that resembles black wool. Shark fins and oysters are dried and salted, and salted plums are a delicacy. Lichee nuts are canned in a thick sirup, and others, dried in the husk, are picked in baskets. The nut is not unlike the date in flavor. Huge boxes filled with the thick white tubers of water lilies are in demand at this season. The custom house people call them "Chinese sweet potatoes," because they are prepared for the table in the same manner.

With every consignment are several sembles black wool. Shark fins and oysters prevails today, even though there is now under the English security of property. Among the chief hoarders are the Indian rajahs, who wear the most expensive of jewelry. I saw many gold rings set with precious stones worth a thousand dollars and upward, and I found gold chains for sale everywhere. Sir David Barbour estimated the amount of the gold hoarded in India during the half century previous to 1885 at \$650,000,000. This was the ac-

from them the faint blue tint of the shell is disclosed. The only difference between

the eggs of an American duck and a Chi-

With every consignment are several boxes of oils and pills for medicine. The pills are an inch in diameter, covered with a thick coating of white beeswax, and stamped with Chinese characters. A sick Chinaman breaks off a portion of the wax coating and makes his pills to suit himself from the black mass inside. The oils are rainly extracts of mint. A package of books consisting of four volumes in a set, each set being inclosed in a flexible cloth covering and fastened with ivory sticks, was said by the importer to be a history of the war with Japan from the Chinese standpoint. The Chinese importations at Chicago amount to \$100,000 annually, most of which is cleared during September and October.

Doesn't Care for Leap Year. From the Chicago Post.

She snapped her fingers disdainfully. "That for leap year," she said. "I wouldn't give one common year for a whole

bushel of them."
"Perhaps," said her dearest friend, with
that solicitude for which dearest friends are noted, "some one has given you the is known only to themselves. A recent mitten.

mitten."
Not at all. He jumped at the chance to get me, and we're engaged."
The dearest friend suggested that she didn't see just what fault could be found with leap year under those circumstances, with leap year under those circumstances, the complaint usually coming from girls who had made a trial and failed to score.

"Why, there's nothing artistic about it," explained the engaged girl. "It isn't sports-manlike to bag your game that way, and manlike to bag your game that way, and there's no real excitement or fun in it—just the disk when rotating, circles of light to some another over its face beginning at the center and ending running up and down and from left to explain the same time. Hence upon looking through the disk when rotating, circles of light at the disk when rotating, circles of light at the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of light at the same time. Hence upon looking through the disk when rotating, circles of ligh rate of from two hundred to three hundred thousand dollars a year. He buys gold mohurs, a coin worth about \$5, with his

Benny's Idea.

From the Texas Sifter. Little Benny-"Mamma, please let me hold the baby for a minute." Mother-"I'm afraid, Benny, you might let her fall." Little Benny-"Well, if she does fall, she can't fall very far.'

The Development of a Vivisector. From Life.







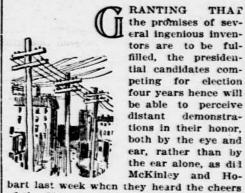
PICTURES BY WIRE

Recent Inventions and What is Claimed for Them.

DISTANT SCENES BROUGHT NEAR

Light Waves and the Problem of Transmitting Them.

SOME CURIOUS DEVICES



II the promises of several ingenious inventors are to be fulfilled, the presidential candidates competing for election four years hence will be able to perceive distant demonstrations in their honor. both by the eye and ear, rather than by the ear alone, as did McKinley and Hoof the Chicago paraders through the long-

distance telephon The wonderful invention of Alexander Graham Bell, recently described, whereby sound may be transmitted through a simple ray of light is perhaps secondary in value to the projected devices of the several experimenters in question, now laboring diligently toward enabling man to gratify his seeing sense with accurate images of far distant occurrences, brought to his eye simultaneously with their taking place.

To be able to sit in one's home and at the same time to view goings on abroad would indeed be one of the most wonderful accomplishments ever anticipated. When there is granted us the possibility of seeing, as well as of hearing, and talking through a wire, vehicles for transporting us from place to place will be no more necessary for the gratification of the so-cial instinct than they now are for the transaction of business transaction of business. Used by Mr. Bell.

Selenium, which Mr. Bell at the outset used in experiments with his radiophone, has been adapted to sight transmission, or perhaps we could better say the long-distance transmission of images. First a word as to scienium: It is found in sulphur deposits, and when precipitated appears as a its, and when precipitated appears as a red powder. This meits when heated, and on cooling forms a brittle mass, nearly black. Its characteristic found to be of particular value to modern experimenters is its strange ability to sympathetically alter its resistance to electricity when subjected to varying intensities of light. Soot or ordinary lamp black found to have the or ordinary lamp black, found to have this same property, is utilized by some of these experimenters as well as by Dr. Bell.

One of the most interesting inventions in this line is that of Prof. Herri Sutton of Victoria.

Victoria, Australia. The apparatus consists of a receiver and a transmitter, difsists of a receiver and a transmitter, dif-fering in construction. According to his principle, a picture or the inage on the ground glass of a camera is held before a system of lenses, which focus it upon the center of a glass plate, containing selen-ium. Before reaching the focus the wayes of light pass through a revolving disk of metal, containing a series of holes arranged metal, containing a series of holes arranged over its face in a closely wound spiral curve.
This separates the light rays coming

from the image, so that they fall, one after another, upon the selenium spot. By an inthere's no real excitement or fun in it—just a little nervousness and it's all over. Any girl can ask a man to marry her, but it's more of a trick for her to make a man ask her. That calls for careful and artistic work. My '95 engagement was twice the sport of the '96 affair.'

would appear to tonow one another over its face, beginning at the center and ending at the circumference. The disk revolves sixty-five times in a second. On account of this speed, the hundreds of light rays flashing through it singly appear to travel sport of the '96 affair.'

Transmitting Light Waves. The spot of selenium is connected with

an electric wire, the current in which flows in vibrations continually differing according to the strength of each light ray as it comes through the disk. In this manner each light wave issuing from each shade in the peture is taken up in turn and transmitted through the wire. At the opposite end of the line the same current is received in a metallic contrivance, through which the light of a lamp is reflected. By a complicated arrangement flected. By a complicated arrangement the induced light rays in the receiver are caused to flash with the same vibration as those focused in turn upon the selectum in the transmitter.

Another revolving perforated disk in the Another revolving perforated disk in the receiver separates the rays before presenting them in turn through the eye piece, which latter may be connected with a camera for preserving the view. Of course, the two disks must be revolved simultaneously to the exact hundredth of a second. This exact sympathy of revolution cannot as yet be accomplished at any great distance. It therefore remains to be solved how this motion can be preto be solved how this motion can be pre-cisely duplicated when the two wheels are not revolved on a common axle.

A similar instrument, patented by an

American, employs two revolving cylinders, connected in electric circuit, which duplicate in the receiver a photographic half-tone plate placed in the transmitter. As in the other case, however, the two cylin-ders must revolve together and at exactly the same axle, reaching from city to city, the contrivance would doubtless be found to be of greater value than for purely scientific experiment made upon the laboratory table. Somewhat different in details of construc-

tion is a very recent invention by C. B. Davis of New York. The image to be transmitted is placed in front of a camera, in the back of which the emanating light rays are brought to a focus upon a sieve. The ends of 200 wires, tipped with selenium, protrude through the meshes of the sieve. After passing through they come together in a point, which is connected to a telegraphic wire. In the receiver the transmitting wire connects with a similar point of wires, which branch out and pro-trude through a sieve as before. By Photography.

Across their exposed ends is placed a

copper plate, and upon this is spread a sheet of paper saturated with phenoiphtalein, alcohol and glycerine. The electric current being turned on, it is claimed that the image appearing before the camera is reproduced upon this sensitive sheet. According to the description of the inventor, the 200 wires in the camera combine their separate impressions in the single transmitting wire, the same impressions being sorted out automatically at the receiving end and distributed in the appropriate wires leading to the copper plate.

F. M. Close, an inventor of Oakland, Cal. F. M. Close, an inventor of Oakland, Cal., lately made the announcement that he had discovered the principles of an apparatus whereby he will be able to see through a wire, and not merely reproduce images transmitted thereby. His invention is described as consisting of a soft iron married transmitted thereby. His invention is described as consisting of a soft iron magnet, inclosed in a box, and connected by wire with another soft iron magnet at the other end. A candle or light placed in front of an opening in one box excites a series of electric vibrations in the connecting wire. The vibrations are repeated in the receiving end, where they are reconverted in the receiving end,

bis discovery the inventor withholds from the public until his satisfaction as to its perfection is further gratified. As Early as 1867.

where they are reconverted into light of the

American patents for instruments devised for transmitting illustrations over long distances date from as early as 1867, when a Frenchman, Lenoir, was given the exclusive right of selling an apparatus for telegraphing fac-similes. The drawing to be tele graphed was made upon a sheet of metal foll, with a fluid non-conductor of electricity. The sheet was wrapped around a roller in the transmitter, a similar roller in the receiver containing a sheet of white paper,

chemically treated. Resting against each roller was an arm which traced a close spiral on the cylincall for your bundle.



Gladness Comes With a better understanding of the

transient nature of the many physical ills, which vanish before proper ef-forts—gentle efforts—pleasant efforts— rightly directed. There is comfort in the knowledge, that so many forms of sickness are not due to any actual disease, but simply to a constipated condi-tion of the system, which the pleasant family laxative, Syrup of Figs, promptly removes. That is why it is the only remedy with millions of families, and is everywhere esteemed so highly by all who value good health. Its beneficial effects are due to the fact, that it is the one remedy which promotes internal cleanliness without debilitating the organs on which it acts. It is therefore all important, in order to get its bene-ficial effects, to note when you pur-chase, that you have the genuine arti-cle, which is manufactured by the Cali-

and the system is regular, laxatives or other remedies are then not needed. If afflicted with any actual disease, one may be commended to the most skillful physicians, but if in need of a laxative, one should have the best, and with the well-informed everywhere, Syrup of Figs stands highest and is most largely used and gives most general satisfaction.

Satisfaction will result. Have the Yale Laundry do your laundry work hereafter. 'Phone 1092. 514 10th st.

drical surface when the roller was put in revolution. The rollers were connected to cells, the circuit between the two former being closed when the tracing arms rested upon their surfaces. While passing over the non-conducting fluid on the foil, the transmitting arm broke the circuit. As long as the current was closed, however, the receiving arm continued to discolor the chem-ical paper beneath it. When the current was broken the upper retained its normal whiteness. The lines of discoloration being very close together, the result was a drawing resembling a blue-print. Of course, the cylinders were of the same size, and had to revolve simultaneously, but this could be done by clockwork without causing serious error.

A modern patent, given to Patrick De-

a modern patent, given to Patrick De-laney of New York city, is somewhat similar in principle. He employs as a transmitter a wide comb of metal, under which a plate, also of metal, may be drawn back and forth. A single electric wire closes a circuit be-tween this and a similar contrivance, con-stituting the receiver. The illustration to te transmitted is drawn in non-conducting ink upon a sheet of paper placed between the first comb and the underlying plate. Chemical paper likewise rests beneath the receiving comb. By a complicated arrange-ment the current is dispatched through the teeth of the combs, one at a time, but in such rapid succession as to appear instan-taneous. The result upon the chemical pa-ter is as before, the comb being drawn over

Illustrations by Wire. An exceedingly simple system of tele-

right, intersecting so as to form small squares. The perpendicular lines are marked "1, 2, 3, 4, 5, 6, etc.," in the top and bottom margins. The herizontal lines are lettered "A, B, C, D, E, etc.," in the right and left margins. The original drawing is made, as large as possible, by an artist upon one of these diagrams.

It is then telegraphed to the receiver merely by naming in order the points of intersection of the various cross-lines of the diagram and the marks of the artist. For instance, the outlines of a face might be telegraphed thus: "R3-P7-L5-H2," and so on until the whole outline drawing is described. The larger curves may be made in scribed. The larger curves may be made in this manner, since all curves in reality are made up of many straight lines. Definite curves, however, may be indicated by addi-tional signs. A brief message describes the finishing of the portrait, as, for instance, the quality of the hair, the style of cloth-ing, etc., to be filled in between the out-lines

lines.

The receiver hands the telegram to another artist, who traces the portrait or figure upon a duplicate diagram by simply running the pencil over the surface between the points indicated as the transections of the proper cross-lines. The picture is lastly touched up in link and handed to the editor. If it be for journalistic publication. touched up in link and handed to the edi-tor, if it be for journalistic publication.

The perfection of a practicable system of transmitting illustrations over long dis-tances will, of course, enable newspapers to exhibit accurate portrayals of distant events occurring within the day of publica-tion—pictures of campaign demonstrations taking place a thousand. taking place a thousand miles away, of battles in Cuba or of massacres in Arme-

nia.

The possibilities of an adaptation of long-The possibilities of an adaptation of long-distance image-transmission to the kineto-scope or vitascope principles are by no means more discouraging. Then, indeed, we might witness our base ball games as they really occur and while they are in progress. But in anticipating what we might do under such a condition, we can, step by step, go logically almost into the ideal world.

Only an Appetizer. From the New York Times.

A popular politician and after-dinner orator from Buffalo was met rushing from a swell 23d street restaurant at 11:30 p.m. by Officer John Thistledown, just appointed to the force from Eric county. Orator-"Thank heaven I've met you,

John! Where's a restaurant that's open at this hour? I'm starving!" Officer Shistledown-"Starving? Thought you were to speak at a banquet this even-

Orator-"So I did, John, so I did. But I've been bunkoed, and I'm starved. Got roped into the annual dinner of the Vegetarian Society."

Where She Would Complain. From London Tid-Bits.

"This liver is awful, Maud," said Mr.

Newwed.

"I'm very sorry," returned the bride.
"I'll tell the cook to speak to the livery-man about it."



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If in the enjoyment of good health,